AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A membrane fuel [[call]] cell delimited by bipolar plates comprising a cathodic compartment and an anodic compartment, wherein

said cathodic compartment comprising a dry air inlet disposed about the bottom of the cathodic compartment through which dry air enters the cathodic compartment, and an exhaust air outlet disposed about the top of the cathodic compartment through which exhaust air is discharged from the cathodic compartment~~means for feeding air from the bottom to the top~~,

said anodic compartment comprising a hydrogen-containing fuel inlet disposed about the top of the anodic compartment through which a hydrogen-containing fuel enters the anodic compartment, and an anodic exhaust outlet disposed about the bottom of the anodic compartment through which anodic exhaust is discharged from the anodic compartment ~~means for feeding a hydrogen-containing fuel from the top to the bottom~~,

at least one of said cathodic and anodic compartment comprising a flow distributor consisting of a porous material.

2. (Original) The cell of claim 1 wherein said at least one compartment comprising a porous flow distributor is the cathodic compartment.

3. (Previously Presented) The cell of claim 1 wherein said porous material is selected from the group consisting of three-dimensional reticulated materials, sintered materials, juxtaposed meshes and juxtaposed expanded sheets.

4. (Previously Presented) The cell of claim 1 wherein said porous material has a porosity dimensioned for generating a gaseous flow pressure variation not higher than 0.5 bar.

5. (Previously Presented) The cell of claim 1 wherein said porous material has a porosity dimensioned for generating a gaseous flow pressure variation not higher than 0.1 bar.

6. (Previously Presented) The cell of claim 1 wherein said porous material has a void volume/total volume ratio not lower than 50%.

7. (Previously Presented) The cell of claim 6 wherein said ratio is equal to or higher than 75%.

8. (Previously Presented) The cell of claim 1 comprising a heat extraction device crossed by liquid water in communication with said cathodic compartment through calibrated holes on the relevant bipolar plate delimiting the cell.

9. (Previously Presented) A fuel cell stack comprising a multiplicity of cells of claim 1.

10. (Previously Presented) A method for operating the cell of claim 1 or the stack of claim 9 comprising feeding said cathodic compartment with air in a dry state and at a pressure lower than 3 bar.

11. (Original) The method of claim 10 wherein said pressure is lower than 1.2 bar.

12. (Previously Presented) The method of claim 10 wherein the temperature of the air discharged from the upper part of said cathodic compartment is less than or equal to the dew point defined by the ratio of moles of water of reaction/overall moles of discharged air and water vapor.

13. (Original) The method of claim 12 wherein the regulation of said temperature of discharged air is obtained by adjusting the temperature of a cooling fluid circulating inside the cell.

14. (Original) The method of claim 13 wherein said cooling fluid is water injected in the lower part of the cell in the proximity of air feed.

15. (Original) The method of claim 14 wherein said water is injected in the lower part of the cell through calibrated holes present on the bipolar plate facing said cathodic compartment.

16. (Original) The method of claim 15 wherein said calibrated holes are in communication with a heat extracting device whence said water injected in the lower part of the cell proceeds.

17. (Previously Presented) The method of claim 16 wherein the flow-rate of the water flowing in said extracting device is substantially equivalent to the flow-rate of said water injected through said calibrated holes.

18. (Previously Presented) The method of claim 14 wherein the regulation of the flow-rate of said injected water is carried out as a function of the electrical current output.

19. (Original) The method of claim 18 wherein said regulation is achieved by acting on the operating regime of an injection pump.

20. (Previously Presented) The method of claim 14 wherein said injected water and said air feed have a constant flow corresponding to the value required for the maximum nominal electrical output.

21. (Canceled)